

DOCKET NO. D-1993-037 CP-4

DELAWARE RIVER BASIN COMMISSION

**Whitemarsh Township Authority
Wastewater Treatment Plant
Whitemarsh Township, Montgomery County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Carroll Engineering Corporation on behalf of Whitemarsh Township Authority (WTA or docket holder) on January 30, 2013 (Application), for review of upgrades to an existing wastewater treatment plant (WWTP). National Pollutant Discharge Elimination System (NPDES) Permit No. PA0026298 for this project was issued by the Pennsylvania Department of Environmental Protection (PADEP) on December 3, 2007, effective January 1, 2008. Renewal of the NPDES Permit is expected shortly. The PADEP issued Water Quality Management Permit No. 4612407 for this project on December 18, 2012.

The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Montgomery County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on May 7, 2013.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to approve upgrades to the existing hydraulically designed 4.0 million gallons per day (mgd) WTA Water Pollution Control Center (WPCC) WWTP and renew its discharge without increasing the capacity of the facility. The PADEP and DRBC have based effluent limits on an annual average flow of 2.0 mgd.

2. **Location.** The WWTP will continue to discharge treated effluent to the Schuylkill River at River Mile 92.47 – 18.6 (Delaware River – Schuylkill River) via Outfall No. 002, in Whitemarsh Township, Montgomery County, Pennsylvania as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
002	40° 04' 26"	75° 17' 04"

3. **Area Served.** The WPCC WWTP will continue to serve Whitemarsh Township and a portion of Plymouth Township, both located in Montgomery County, Pennsylvania. For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

4. **Physical Features.**

a. **Design Criteria.** The docket holder operates the existing 4.0 mgd WPCC WWTP. Upgrades to the facility include replacing mechanical screen and grit removal systems as well as primary and secondary trickling filter recirculation pumps, expanding the chlorine contact basin to allow half of the basin to be taken off line in the future for maintenance purposes, and constructing hydraulic improvements throughout the plant. The PADEP and DRBC have based effluent limits for the facility on the average annual discharge flow of 2.0 mgd.

b. **Facilities.** The existing WPCC WWTP consists of a grit chamber, a bar screen, two (2) primary clarifiers, one (1) primary and one (1) secondary trickling filter, two (2) secondary clarifiers, a sludge holding tank, and a chlorine contact tank.

The upgraded WPCC WWTP will consist of a grit chamber, a bar screen, two (2) primary clarifiers, one (1) primary and one (1) secondary trickling filter, two (2) secondary clarifiers, a sludge holding tank, and two (2) chlorine contact tanks.

The project facilities aren't located in the 100-year floodplain.

Wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at a (State-approved) facility.

c. **Water withdrawals.** The potable water supply in the project service area is provided by the Ambler Township Municipal Authority. The withdrawal and distribution system were approved by the Commission on March 3, 2010 via Docket No. D-1985-026 CP-4.

d. **NPDES Permit / DRBC Docket.** NPDES Permit No. PA0026298 was issued by the PADEP on December 3, 2007 (effective January 1, 2008) and includes final effluent limitations for the project discharge of 2.0 mgd to surface waters classified by the PADEP as a warm water/ migratory fishery (WWF/MF). Renewal of the NPDES Permit is expected shortly. The following average monthly effluent limits are among those listed in the current NPDES Permit that are expected to be renewed without modification and meet or are more stringent than the effluent requirements of the DRBC.

EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES Permit

OUTFALL 002 (WWTP)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES Permit
Total Suspended Solids	30 mg/l	As required by NPDES Permit

OUTFALL 002 (WWTP)		
PARAMETER	LIMIT	MONITORING
CBOD (5-Day at 20° C)	25 mg/l (85% minimum removal*)	As required by NPDES Permit
Ammonia Nitrogen	20 mg/l	As required by NPDES Permit
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit

* DRBC Requirement

EFFLUENT TABLE A-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL 002 (WWTP)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1,000 mg/l *	Quarterly **

* DRBC Requirement

** See DECISION Condition II.u.

The PADEP has required a Dissolved Oxygen (DO) minimum effluent concentration of 5.0 mg/l for the WPCC WWTP. The DRBC does not require DO monitoring or minimum effluent concentrations outside of Special Protection Waters (SPW).

e. **Cost.** The overall cost of this project is estimated to be \$3,291,000.

f. **Relationship to the Comprehensive Plan.** The 4.0 mgd WTA WPCC WWTP was included into the Comprehensive Plan upon issuance of Docket No. D-93-37 CP-2 on May 14, 2008. Docket No. D-93-37 CP-2 erroneously listed the facility as a 2.0 mgd WWTP (the flow effluent limits were based upon instead of the hydraulic capacity). Docket No. D-1993-037 CP-3 continued approval of the WWTP in the Comprehensive Plan upon its issuance on December 5, 2012. Issuance of this docket will continue approval of the 4.0 mgd WPCC WWTP in the Comprehensive Plan (See DECISION Condition I.c.).

B. **FINDINGS**

The purpose of this docket is to approve upgrades to the existing hydraulically designed 4.0 mgd WTA WPCC WWTP and renew its annual average discharge of 2.0 mgd without increasing the capacity of the facility. Upgrades to the facility include replacing mechanical screen and grit removal systems as well as primary and secondary trickling filter recirculation pumps, expanding the chlorine contact basin to allow half of the basin to be taken off line in the future for maintenance purposes, and constructing hydraulic improvements throughout the plant. The PADEP and DRBC have based effluent limits for the facility on the average annual discharge flow of 2.0 mgd.

At the project site, the Schuylkill River has an estimated seven-day low flow with a recurrence interval of ten years of 60.9 mgd (93.9 cfs). The ratio of this low flow to the average annual wastewater discharge is 30 to 1.

The nearest public water supply surface water intake of record is located approximately 6.7 river miles downstream of the project discharge and is operated by the City of Philadelphia.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's *WQR*.

C. DECISION

I. Effective on the approval date for Docket No. D-1993-037 CP-4 below:

a. The project described in Docket No. D-1993-037 CP-3 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1993-037 CP-4; and

b. Docket No. D-1993-037 CP-3 is terminated and replaced by Docket No. D-1993-037 CP-4; and

c. The project and the appurtenant facilities described in Section A "Physical Features" of this docket shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in Section A "Physical Features" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its NPDES and WQM Permits, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's.

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. The facility shall be operated at all times to comply with the requirements of the Commission's *WQR*.

d. The docket holder shall comply with the requirements contained in the Effluent Tables in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results directly to the DRBC Project Review Section. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the

violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations.

e. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

f. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

g. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

h. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F, nor shall such discharge result in stream temperatures exceeding 87°F.

i. Sound practices of excavation, backfill and reseeding shall be followed to minimize erosion and deposition of sediment in streams.

j. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date.

k. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement (“Statement”) signed by the docket holder’s professional engineer for the project. The Statement must (1) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; (2) report the project’s final construction cost as such cost is defined by the project review fee schedule in effect at the time the application was made; and (3) indicate the date on which the project was (or is to be) placed in operation. In the event that the final project cost exceeds the estimated cost used by the docket holder to calculate the DRBC project review fee, the statement must also include (4) the amount of any outstanding balance owed for DRBC review. The outstanding balance will equal the difference between the fee paid to the Commission and the fee calculated on the basis of the project’s final cost, using the formula and definition of “project cost” set forth in the DRBC’s project review fee schedule in effect at the time application was made.

l. The WWTP modifications shall be completed within three years of approval of this docket or the docket holder shall demonstrate to the Executive Director that it has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval. If the modifications have not been completed within three years of Docket Approval and the docket holder does not submit a cost analysis demonstrating substantial funds have been

expended, Commission approval of the modifications to the existing WWTP shall expire. If the approval of the upgrades expires under this condition, the docket holder shall file a new application with the Commission and receive Commission approval prior to initiating construction of any modifications.

m. The docket holder is permitted to treat and discharge wastewaters as set forth in the Area Served Section of this docket, which incorporates by reference Sections B (Type of Discharge) and D (Service Area) of the docket holder's Application to the extent consistent with all other conditions of this DECISION Section.

n. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

o. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

p. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

q. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

r. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below (or the later date established by an extension that has been timely requested and approved), the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

s. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

t. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In

accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

u. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

v. The docket holder is prohibited from treating/pre-treating any hydraulic fracturing wastewater from sources in or out of the Basin at this time. Should the docket holder wish to treat/pre-treat hydraulic fracturing wastewater in the future, the docket holder will need to first apply to the Commission to renew this docket and be issued a revised docket allowing such treatment and an expanded service area. Failure to obtain this approval prior to treatment/pre-treatment will result in action by the Commission.

BY THE COMMISSION

DATE APPROVED: May 8, 2013

EXPIRATION DATE: May 8, 2018